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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/923,079	08/06/2001	Yasukiyo Kunimatsu	0941.65732	1489

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EXAMINER

BATTAGLIA, MICHAEL V

ART UNIT	PAPER NUMBER
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2652

DATE MAILED: 06/09/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/923,079

Applicant(s)

KUNIMATSU, YASUKIYO

Examiner

Michael V Battaglia

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 April 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9, 11 and 12 is/are rejected.
- 7) ☒ Claim(s) 10 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

This action, dated June 7, 2004, is in response to Applicant's amendment, filed April 26, 2004. Claims 1-12 are pending.

Claim Rejections - 35 USC § 112

1. Claim 12 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 12 recites the limitation "the phase plate" in lines 5 and 6. It is unclear to which of the first and second phase plates the limitation is referring. It is noted that an improper handwritten attempt was made to clarify the limitation by writing in "first" before "phase plate" on lines 5 and 6 that would correct the clarity issue. The examiner will interpret the claim as such hereafter.

Claim Rejections - 35 USC § 102

1. Claims 1-9 and 11 are rejected under 35 U.S.C. 102(e) as being anticipated by Yamashita et al. (hereafter Yamashita) (US 6,392,972).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

In regard to claim 1, Yamashita discloses a phase compensation method which uses a phase plate to compensate for an optical phase of a reproduced signal in a reproducing optical system which is provided with respect to the reproduced signal from an optical recording medium, comprising the steps of: recognizing a type of an optical recording medium (Fig. 3, element S1); and controlling a position of the phase plate to an arbitrary inclination angle (Col. 9, lines 19-26) within a predetermined variable range depending on the type of the optical recording medium (Fig. 3 and Fig. 10, element 41), so that a carrier-to-noise ratio of a reproduced signal from a track which is being reproduced becomes a maximum or, a DC fluctuation of the reproduced signal becomes a minimum or, a crosstalk level from tracks adjacent to the track which is being reproduced becomes a minimum (Col. 3, lines 22-28).

In regard to claim 2, Yamashita discloses a phase compensation method which uses a phase plate to compensate for an optical phase of a reproduced signal in a reproducing optical system which is provided with respect to the reproduced signal from an optical recording medium, comprising the steps of: (a) detecting a position of the phase plate where a carrier-to-noise ratio of a reproduced signal from a track which is being reproduced becomes a maximum or, a DC fluctuation of the reproduced signal becomes a minimum or, a crosstalk level from tracks adjacent to the track which is being reproduced becomes a minimum (Col. 3, lines 22-28 and Col. 6, lines 27-40 and 56-59); (b) storing control data related to the position of the phase plate depending on a type of the optical recording medium (Col. 3, lines 57-59); and (c) controlling the position of the phase plate to an arbitrary position angle (Col. 9, lines 19-26) within a predetermined variable range based on the control data (Col. 10, lines 26-34).

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In regard to claim 3, Yamashita discloses phase compensation method as claimed in claim 2, further comprising the step of: (d) recognizing the type of the optical recording medium (Fig. 3, element S1 and Col. 3, line 60).

In regard to claim 4, Yamashita discloses the phase compensation method as claimed in claim 3, further comprising the step of: (e) obtaining the control data at a time of loading the optical recording medium (Col. 3, lines 60-61).

In regard to claim 5, Yamashita discloses the phase compensation method as claimed in claim 2, further comprising the step of: (d) obtaining the control data at a time of loading the optical recording medium (Col. 3, lines 60-61).

In regard to claim 6, Yamashita discloses an optical storage apparatus comprising: a phase plate configured to compensate for an optical phase of a reproduced signal from an optical recording medium (Fig. 10, element 41); a detector configured to detect a position of the phase plate (Col. 8, lines 36-45); a varying unit configured to vary the position of the phase plate (Fig. 10, element 64); and a control unit configured to control the position of the phase plate to an arbitrary inclination angle (Col. 9, lines 19-26) within a predetermined variable range depending on a type of the optical recording medium (Fig. 3, element S1 and Fig. 10, element 66), so that a carrier-to-noise ratio of a reproduced signal from a track which is being reproduced becomes a maximum or, a DC fluctuation of the reproduced signal becomes a minimum or, a crosstalk level from tracks adjacent to the track which is being reproduced becomes a minimum (Col. 3, lines 22-28).

In regard to claim 7, Yamashita discloses a memory configured to store control data related to the position of the phase plate where the carrier-to-noise ratio of the reproduced signal from the track which is being reproduced becomes the maximum or, the DC

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fluctuation of the reproduced signal becomes the minimum or, the crosstalk level from the tracks adjacent to the track which is being reproduced becomes the minimum, said control unit controlling the varying unit based on the control data stored in the memory (Fig. 3, element S3 and Fig. 4, element 26a).

In regard to claim 8, Yamashita discloses that said memory stores control data within one track or, within a plurality of tracks or, within one zone of the optical recording medium (Col. 6, lines 34-45 and Col. 7, line 63-Col. 8, line 1).

In regard to claim 9, Yamashita discloses a recognizing unit configured to recognize the type of the optical recording medium (Col. 6, lines 53-59).

In regard to claim 11, Yamashita discloses a means for obtaining the control data when loading the optical recording medium into the optical storage apparatus, said control unit controlling the varying unit based on the control data (Col. 6, lines 53-64).

Allowable Subject Matter

2. Claim 10 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

3. Claim 12 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

Response to Arguments

4. Applicant's arguments filed April 26, 2004 have been fully considered but they are not persuasive. Applicant argues that Yamashita does not disclose that the phase plate is

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capable of being controlled at arbitrary inclination angles. However, Yamashita discloses that the optical phase of the incoming laser beam is capable of being arbitrarily set by adjusting the inclination angle of the incident surface of the phase plate (Col. 9, lines 19-26). Consequently, Yamashita suggests a phase plate (Figs. 7, 8 and 10, element 41) capable of being set at arbitrary inclination angles to arbitrarily set the phase of the incoming laser beam. Based on an optical phase adjusting quantity read from the control region of an optical disc, the phase plate is switched between two of the arbitrary inclination angles (Col. 6, lines 27-41 and Col. 7, lines 3-5). Thus, for each disc type, the position of the phase plate is switched between the two arbitrary inclination angles selected for the particular disc type.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael V Battaglia whose telephone number is (703) 305-4534. The examiner can normally be reached on 5-4/9 Plan with 1st Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa T Nguyen can be reached on (703) 305-9687. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Michael Battaglia



W. R. YOUNG
PRIMARY EXAMINER